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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BERDICHEVSKY, MIRIAM

ART UNIT

PAPER NUMBER

1795

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,733	<b>Applicant(s)</b> INOUE ET AL.	
	<b>Examiner</b> MIRIAM BERDICHEVSKY	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11, 14 and 22-34 is/are pending in the application.
- 4a) Of the above claim(s) 5-8 and 28-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11, 14 and 22-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Newly submitted claims 28-34 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The newly added claims and the originally selected claims do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the common technical feature in these groups are the limitations of claim 1. This element cannot be a special technical feature under PCT Rule 13.2 because the element is shown in the prior art. JP 05-186610 teaches the limitations of claim 1 as discussed below. Moreover, the newly added claims are method claims of a different product.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 28-34 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Remarks***

Claims 22-34 are new. Claims 9-10, 12-13 and 15-21 are canceled. Claims 5-8 and 28-34 are withdrawn. Claims 1-4, 11, 14 and 22-27 are currently pending.

### ***Status of Rejections***

All rejections from the previous office action are maintained. New rejections are presented for the newly added claims.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 22, 24 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by JP'610 (JP 5-186610).

As to claim 1, JP'610 teaches a filler sheet for a solar cell module, which is formed as a filler sheet laminated on front face and rear face sides of a solar cell element and is made of a resin film produced by a resin composition comprising: a copolymer of an  $\alpha$ -olefin and an ethylenic unsaturated silane compound ([0011], [0018] and [0032]) and one or more selected from a group consisting of a light resisting agent, an ultraviolet absorbent and a thermal stabilizer ([0033]).

Regarding claim 2, JP'610 teaches that the  $\alpha$ -olefin is one or more selected from a group consisting of ethylene, propylene, 1-butene, isobutylene, 1-pentene, 2-methyl-1-butene, 3-methyl-1-butene, 1-hexene, 1-heptene, 1-octene, 1-nonene, and 1-decene ([0032]).

Regarding claim 3, JP'610 teaches that the ethylenic unsaturated silane compound is one or more selected from the group consisting of vinyltrimethoxysilane ([0018]).

Regarding claim 4, JP'610 teaches that the copolymer further comprises one or more selected from vinyl acetate, acrylic acid, methacrylic acid, methyl acrylate, methyl methacrylate, ethyl acrylate and vinyl alcohol ([0021]).

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Regarding claims 22, 24 and 26, are not further limiting because claim 1 does not require a thermal stabilizer and/or a light resisting agent, as JP'610 teaches the UV absorbent.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 11, 14 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'610 as applied to claim 1 above and further in view of JP'073 (JP 2001-320073).

Regarding claim 11, JP'610 teaches the use of stabilizers/additives in the copolymer ([0033]) but is silent to the additive being a thermal stabilizer made of a phosphorous type or phenol type.

JP'073 teaches an olefin based filler sheet for solar cells which includes a phosphorous type or phenol type ([0069]).

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It would have been obvious to one of ordinary skill in the art at the time of the invention to use the phosphorous type or phenol type thermal stabilizer of JP'073 in JP'610 because the additives increase weatherability of the solar module, as taught by JP'073 ([0069]) especially in light of the fact that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (MPEP 2144.07).

Regarding claims 14 and 26-27, JP'610 teaches the use of stabilizers/additives in the copolymer ([0033]) but is silent to the light resisting agent being 0.01-5% by weight of the copolymer (claim 26), the UV absorbent being 0.05-5% by weight of the copolymer (claim 27) and the thermal stabilizer being 0.05-5% by weight of the copolymer (claim 14).

JP'073 teaches an olefin based filler sheet for solar cells which includes light resisting, UV absorbing and thermal stabilizing additives added to the filler sheet at 0.1 to 10% by weight depending on the shape and density of the product ([0069]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the light resisting agent at 0.01-5% by weight of the copolymer (claim 12), the UV absorbent at 0.05-5% by weight of the copolymer (claim 13) and the thermal stabilizer at 0.05-5% by weight of the copolymer (claim 14) in order to optimize the weatherability, heat resistance, lightfastness, water resistance, wind endurance, hailstorm proof nature of the solar cell module (JP'073: [0001]) as it has been held to be within the general skill of a worker in the art to discover an optimum value of a result effective variable as part of routine skill in the art (MPEP 2144.05).

Regarding claim 23, JP'610 teaches the use of a copolymer of ethylene and an ethylene nature unsaturated silane such as vinyltrimethoxysilane ([0011] and [0018]) but is silent the ethylene formed being straight chain low density polyethylene.

JP'073 teaches that olefins such as ethylene specifically low density polyethylene can be used in a filler sheet for solar cell modules ([0010]), wherein polyethylene forms straight chains of ethylene monomers.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the low density polyethylene of JP'073 in JP'610 because JP'073 teaches that the materials are art recognized equivalents such that one of ordinary skill would have found it obvious to use low density polyethylene of a limited number of options with a reasonable expectation of success with predictable results. Moreover, selection of a known material based on its suitability for an intended use is within the skill of a worker in the art (MPEP 2144 and 2141).

Regarding claim 24, JP'610 teaches the use of stabilizers/additives in the copolymer ([0033]) but is silent to the additive being a light resisting agent made of a hindered amine type stabilizer.

JP'073 teaches an olefin based filler sheet for solar cells which includes a hindered amine system ([0069]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the hindered amine system of JP'073 in JP'610 because the additives increase weatherability of the solar module, as taught by JP'073 ([0069]) especially in light of the fact that it has been held to be within the general skill of a worker in the art to

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select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (MPEP 2144.07).

Regarding claim 25, JP'610 teaches the use of UV absorbers in the copolymer ([0033]) but is silent to the additive being a made of a benzophenone type or acrylonitrile derivative type.

JP'073 teaches an olefin based filler sheet for solar cells which includes a hindered amine system ([0069]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the benzophenone system of JP'073 in JP'610 because the additives increase weatherability of the solar module, as taught by JP'073 ([0069]) especially in light of the fact that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (MPEP 2144.07).

### ***Response to Arguments***

Applicant's arguments filed 8/7/2009 have been fully considered but they are not persuasive. Applicant argues that the references do not explicitly teach a "thermal stabilizer". However, instant claim 1 does not require a thermal stabilizer but "*one* or more selected from a group consisting of a light resisting agent, an ultraviolet absorbent and a thermal stabilizer". Because JP'610 teaches an ultraviolet absorbent; JP'610 teaches instant claim 1.



***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **MIRIAM BERDICHEVSKY** whose telephone number is (571)270-5256. The examiner can normally be reached on M-Th, 10am-8pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Michener can be reached on (571) 272-1424. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. B./  
Examiner, Art Unit 1795

/Jennifer K. Michener/

Supervisory Patent Examiner, Art Unit 1795